

## EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	33000	record\$4 same layer same dye	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/03/18 17:03
L2	96186	reflect\$4 same layer same thick\$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/03/18 17:04
L3	348396	groove\$1 same (depth width)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/03/18 17:04
L4	1321	1 and 2 and 3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/03/18 17:05
L5	20706	modulat\$4 same reflect\$4 same laser same beam	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/03/18 17:06
L6	189	4 and 5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/03/18 17:06
S1	2	("20050174924").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/07/09 11:29

## EAST Search History (Prior Art)

S2	2	"EP 0957477"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/09 17:46
S3	2	("5764619").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/07/11 15:05
S4	4377	dye near5 thickness	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/11 15:06
S5	28982	dye same thickness	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/11 15:06
S6	1279	S4 and (record\$3 near5 layer)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/11 15:06
S7	159960	record\$3 near5 layer	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/11 15:07
S8	1279	S4 and S7	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/11 15:41

## EAST Search History (Prior Art)

S9	140073	guide near5 groove	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/11 15:41
S10	176	S8 and S9	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/11 15:42
S11	84	S10 and land	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/11 15:43
S12	6460795	S11 @ad> "20020618"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/11 15:44
S13	22750843	S11 @ad< "20020618"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/11 15:45
S14	22750792	@ad< "20020618"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/11 15:45
S15	33	S11 and S14	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/12 10:53

## EAST Search History (Prior Art)

S16	4382	dye near5 thickness	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/12 10:54
S17	160018	record\$3 near5 layer	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/12 10:54
S18	1281	S16 and S17	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/12 10:54
S19	140134	guide near5 groove	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/12 10:54
S20	176	S18 and S19	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/12 10:54
S21	84	S20 and land	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/12 10:54
S22	22750796	@ad< "20020618"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/12 10:59

## EAST Search History (Prior Art)

S23	33	S21 and S22	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/12 10:54
S24	4	S23 and (reflect\$3 near5 level)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/12 10:56
S25	42332	(reflect\$3 near5 level)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/12 10:57
S26	10955	S25 AND wavelength	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/12 10:58
S27	196	S26 and (optic\$2 near5 stack)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/12 10:59
S28	111	S27 and @ad< "20020618"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/12 11:25
S29	104	S28 and reflection	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/12 11:26

## EAST Search History (Prior Art)

S30	47	S28 and (reflection near5 level)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/12 13:03
S31	1919	((modulat\$3 near5 record\$3) near5 mark)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/12 13:03
S32	33	(((((modulat\$3 near5 record\$3) near5 mark) near5 layer) near5 optic\$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/12 13:04
S33	2377	(369/275.4).CQLS.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/07/12 15:47
S34	4	S27 and S33	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/12 15:47
S35	675	(369/94).CQLS.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/07/12 15:48
S36	5	S27 and S35	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/12 15:48

## EAST Search History (Prior Art)

S37	1704	(369/288).CQLS.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/07/12 15:48
S38	2	S27 and S37	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/12 15:48
S39	49	(dye same groove same depth).dm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/07/03 15:14
S40	835	dye same groove same depth	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/07/03 15:24
S41	1752654	(dual double two second) same layer	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/07/03 15:25
S42	1303302	(dual double two second) with layer	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/07/03 15:25
S43	1075292	(dual double two second) near6 layer	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/07/03 15:26

## EAST Search History (Prior Art)

S44	419	S40 and S43	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/07/03 15:26
S45	25683	(deep depth) near9 nm	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/07/03 15:27
S46	201	S44 and S45	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/07/03 15:27
S47	670391	(laser light beam) same (disc disk substrate layer) same (top bottom up upper upward\$1 down downward\$1 low lower above below)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/04/10 12:16
S48	282135	(laser light beam) with (disc disk substrate layer) with (top bottom up upper upward\$1 down downward\$1 low lower above below)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/04/10 12:17
S49	106989	("369").CLAS.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2009/04/10 12:18
S50	25858	S47 and S49	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/04/10 12:18



## EAST Search History (Prior Art)

S51	25148820	@ad< "20020618"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/04/10 12:19
S52	14776	S50 and S51	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/04/10 12:19
S53	1415280	(multi\$4 plural\$4 dual double second two) near6 layer	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/04/10 12:26
S54	4289	S52 and S53	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/04/10 12:26
S55	106812	substrate same groove	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/04/10 12:27
S56	1443	S54 and S55	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/04/10 12:27
S57	13095	modulat\$4 same reflect\$4 same level	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/09/09 17:25

## EAST Search History (Prior Art)

S58	1001	modulat\$4 same reflect\$4 same level same mark\$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/09/09 17:25
S59	3846	(disc disk) and (groove same (deep depth)) and (reflect\$4 same thick\$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/09/09 17:28
S60	61	S58 and S59	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/09/09 17:28
S61	0	"(R.sub.mark-R.sub.no-mark)/R.sub.mark"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/09/09 17:56
S62	0	"(R.sub.no-mark-R.sub.mark)/R.sub.no-mark"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/09/09 17:56
S63	3	"(R.sub.no-mark"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/09/09 18:05
S64	5	"R.sub.mark"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/09/09 18:08

### EAST Search History (Prior Art)

S65	0	"EP 020785739"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/09/09 18:09
S76	7	"517917".ap.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/03/18 16:58

### EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S66	298	(modulat\$4 and reflect\$4 and mark).clm.	USPAT; UPAD	OR	ON	2009/09/09 20:33
S67	24	(modulat\$4 and reflect\$4 and mark and groove and substrate and optical and record\$4).clm.	USPAT; UPAD	OR	ON	2009/09/09 20:34
S68	7	(369/275.1).CCLS.	UPAD	OR	OFF	2009/09/09 20:34
S69	10	(369/275.4).CCLS.	UPAD	OR	OFF	2009/09/09 20:34
S70	8	(369/94).CCLS.	UPAD	OR	OFF	2009/09/09 20:35
S71	1	(369/288).CCLS.	UPAD	OR	OFF	2009/09/09 20:35
S72	1	S66 and S68	USPAT; UPAD	OR	ON	2009/09/09 20:35
S73	0	S66 and S69	USPAT; UPAD	OR	ON	2009/09/09 20:35
S74	0	S66 and S70	USPAT; UPAD	OR	ON	2009/09/09 20:35
S75	0	S66 and S71	USPAT; UPAD	OR	ON	2009/09/09 20:35